

VERSION WITH MARKINGS TO SHOW CHANGES MADEIN THE CLAIMS:

- 1 1. (Amended) A process of treating internal combustion
2 engine exhaust gas containing O₂, NO_x, unburnt hydrocarbon ("HC"), CO
3 and soot, comprising:
- 4 i. oxidising a substantial part of the HC, ~~with possibly~~
5 ~~some oxidation of NO to NO₂~~;
- 6 ii. treating the product of step i to oxidise NO to NO₂;
- 7 iii. collecting soot; and
- 8 iv. combusting the collected soot by reaction with the NO₂
9 and possibly any O₂ left over after steps i and ii.
- 1 3. (Amended) Process according to claim 1 ~~or claim 2~~
2 carried out over:
- 3 i. a first catalyst adapted to be fed with engine exhaust gas
4 and effective to promote oxidation of HC therein;
- 5 ii. a second catalyst adapted to be fed with the product of i
6 and effective to promote oxidation of NO to NO₂;
- 7 iii. a filter effective to collect soot and to retain it until
8 combusted by said NO₂ and any O₂ left over after catalyst i and ii.
- 1 6. (Amended) Process according to ~~any one of the~~
2 ~~preceding claims~~ claim 1, wherein the HC is in gaseous form.
- 1 8. (Amended) Process according to claim 6 ~~or claim 7~~ in
2 which the gas leaving step/catalyst i undergoes cooling and then enters
3 step/catalyst ii.

1 9. (Amended) Process according to ~~any one of the claims~~
2 ~~6, 7, and 8, including the provision of~~ claim 6, further comprising providing
3 an increased amount of combustible upstream of the step a first catalyst for
4 effecting step i, whereby to increase for increasing the temperature at which
5 ~~that step i operates.~~

1 11. (Amended) Process according to ~~any one of the claims 6~~
2 ~~to 10~~ claim 6 in which ~~the~~ a first catalyst for effecting step i has a very low
3 light-off temperature for HC and CO oxidation.

1 12. (Amended) A process according to ~~any one of claims 1~~
2 ~~to 5~~ claim 1, wherein the HC is absorbed on the soot.

1 13. (Amended) Process according to ~~any one of the~~
2 ~~preceding claims including also~~ claim 1 further comprising removing NOx-
3 ~~removal~~ downstream of soot combustion.

1 14. (Amended) Process according to claim 13 ~~including also~~
2 wherein removing NOx uses a regenerable NOx absorber downstream of the
3 collecting trap.

1 16. (Amended) System for ~~carrying out a process according~~
2 ~~to any one of the preceding claims~~ treating internal combustion engine gas
3 containing O₂, NOx, unburnt hydrocarbon ("HC"), CO and soot,
4 comprising:

5 i. a first catalyst to receive engine exhaust and effective to
6 promote oxidation of HC therein;

7 ii. a second catalyst receiving the product of the first
8 catalyst and effective to promote oxidation of NO to
9 NO₂; and

10 iii. a filter effective to collect soot and to retain it until
11 combusted by reaction with said NO₂ and, depending on
12 conditions, any O₂ left over after the first catalyst.

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- 1 19. (Amended) A diesel engine in combination with a
2 system according to ~~any one of the claims 16 to 18~~ claim 16 connected to its
3 exhaust.

Claim 25 has been added.

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